

Serial No. 10/820,434

Reply to Office Action Mailed July 20, 2005

REMARKS/ARGUMENTS

Prior to this Amendment, claims 1-19 were pending in the application.

Claim 1 is amended to clarify that the home automation control system provides many-to-many access between control panels and controlled devices. Support is found for this claim amendment in paragraphs [0033]-[0037]. Claims 3 and 4 are amended to address claim objections.

Independent claim 10 is amended to include the limitations of dependent claim 12, which is cancelled.

Claims 13-19 are cancelled to hasten allowance of this case as being to a non-elected invention.

New claims 20-24 are added to provide protection of varying breadth than claim 1. Support for these claims is found at least in original claims 1-8 and paragraphs [0033]-[0037].

After entry of the Amendment, claims 1-11 and 20-24 remain for consideration by the Examiner.

Elections/Restrictions

The Examiner restricted originally-filed claims 1-19 into three groups as being directed to three distinct inventions. Specifically, claims 1-12 and 19 were placed in Group I, claim 13 was placed in Group II, and claims 14-18 were placed in Group III. In a telephone conversation with the Examiner, Applicant's representative Stuart Langley provisionally elected to prosecute the invention of Group I (or the invention called for in claims 1-12 and 19).

With this Amendment, Applicant affirms the election to prosecute the invention of Group I without traverse. In this regard, claims to the inventions of Groups II and III are cancelled with this Amendment.

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Claim Objections

The July 20, 2005 Office Action objected to claims 3, 4, 7, 8, 9, and 10 based on improper antecedent basis issues and typographical/grammatical errors. The claims are amended to address these objections.

Claim Rejections Under 35 U.S.C. §102

The July 20, 2005 Office Action rejected claims 1-4 under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. Appl. Publ. No. 2003/0037170 ("Zeller"). This rejection is traversed based on the following remarks.

Claim 1 is directed to a home automation control system that is directed toward solving the problem associated with many existing home control systems in that they often include a number of control panels that are each distinctly configured to communicate with one or more controlled devices but not with each other. As discussed in paragraphs [0033] to [0037], one important feature of the invention is that the control system "enables controlled many-to-many access between each control panel 101/107 and any of the controlled devices or subsystems." Each control panel includes the intelligence or processes to communicate with other control panels so as to command any controlled device in the system and to handle status messages from any controlled device, even when the controlled devices use differing signaling protocols. This was not true of prior control systems, such as server-based control systems as discussed in paragraph [0007] in Applicant's Background and as taught by Zeller (e.g., see, central server 24 of Figure 1).

Referring to the claim language, claim 1 calls for the control system to include a plurality of controlled devices each implementing an interface for communicating control messages based on signaling protocol information, with at least two of the interfaces using differing signaling protocols or protocol information for forming the control messages. Processes are provided in each of the control panels "operable to generate command messages relevant to any one of the controlled devices" and processes in each control panel to "handle status messages relevant to any of the controlled devices." Zeller fails to show or suggest at least these three elements of claim 1 (i.e., at least the last 3 claim elements), and hence, Applicant requests that the rejection be withdrawn.

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The Office Action cites Zeller for teaching the final three elements of claim 1 at Figure 1 elements 24, 26, 38, and 44 with reference to paras. [0022], [0047], [0100], and [0108]. However, with reference to Figure 1, Zeller shows a central-server type control system (see central server 24) that does not include processes in each of the control panels to issue command messages to controlled devices regardless of which control panel those devices are directly linked to or which signaling protocol that devices interface utilizes. In other words, there is no teaching in Zeller that network terminating device 14 can generate command messages to any of the controlled devices in the building 8 (such as devices linked to network terminating device 16). Further, there is no discussion in Zeller that the various controlled devices may implement interfaces that communicate control messages based on differing signaling protocol information, and hence, no awareness in Zeller that intercommunication among control panels may be a problem. For these reasons, claim 1 is not anticipated by Zeller.

Further, there is no teaching in Zeller that processes in each control panel are provided to handle status message from any of the controlled devices. For example, there is no discussion that the network terminating device 16 is operable to handle status messages from devices linked to network terminating device 14 or vice versa. Hence, Zeller does not appear to teach or suggest the final claim limitation of claim 1.

Claims 2-4 depend from claim 1 and are believed allowable over Zeller at least for the reasons provided for allowing claim 1. Further, claim 3 calls for one control panel to respond to a message from another control panel to issue a command message. As discussed above with reference to claim 1, Zeller does not teach that device 14 or 16 can issue messages to the other to have that other device issue a command message to a controlled device. The Office Action discusses Zeller's use of IP communications, but this does not appear to apply to the limitations of amended claim 3. For this additional reason, claim 3 is believed allowable over Zeller.

New independent claim 20 includes limitations similar to that of claim 1 and is believed allowable over Zeller for the reasons provided for allowing claim 1. Claims 21-24 depend from claim 20 and are believed allowable as depending on an allowable base claim.

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Also, the July 20, 2005 Office Action rejected claims 10, 11, and 19 under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. No. 6,834,208 ("Gonzales"). The rejection of claims 10 and 11 is traversed based on the following remarks, with claim 19 being cancelled.

Initially, claim 10 is amended to include the limitation of dependent claim 12, which is cancelled. The Examiner found claim 12 to be allowable over Gonzales when considered alone, and hence, amended claim 10 is believed allowable over Gonzales.

Further, claim 10 calls for a network interface configured to couple other control units and exchange control messages with the other control units. This element of claim 10 is not shown by Gonzales. The Office Action cites Gonzales at Figure 2 element 56 and Figure 4 element 80 for teaching this element. However, element 56 is labeled a "2-Way Bus Communication Driver" and there is no discussion in the related text of Gonzales that this driver 56 acts as an interface that would connect one or more control units and support exchange of control message among various control units. Instead, Gonzales teaches providing the microcontroller in each controlled device, such as the controlled devices of Figure 1, rather than in control units (e.g., 16, 24, and 26 of Figure 1). Further, element 80 is an exemplary control system protocol (i.e., a CEBus), which does not describe a network interface for coupling control units for exchanging control messages. Instead, as discussed in col. 11 of Gonzales, this element 80 may be thought of as a communication protocol for low-level communication in the home control system of Gonzales. For these reasons, claim 10 is believed allowable over Gonzales.

Claim 11 depends from claim 10 and is believed allowable over Gonzales at least for the reasons for allowing claim 10. Further, the Office Action cites the "Home Plug and Play protocol" element 82 of Figure 4 for teaching the built in library of platform drivers of claim 11 used to implement a plurality of specific functionality for controlling hardware. However, the description of element 82 in col. 11 of Gonzales describes this element 82 as a protocol that "implements the Home and Plug and Play Specification that provides a uniform implementation for using the Common Application Language" for "inter-device communication." There is no apparent teaching of a set of drivers for controlling specific hardware in a home automation system. Hence, claim 11 is not anticipated or made obvious for this additional reason.

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Claim Rejections Under 35 U.S.C. §103

Additionally, the July 20, 2005 Office Action rejected claims 5-8 under 35 U.S.C. §103(a) as being unpatentable over Zeller in view of U.S. Pat. Publ. No. 2002/011698 ("Graziano"). This rejection is traversed based on the following remarks.

Claims 5-8 depend from claim 1 and the reasons for allowing claim 1 over Zeller are applicable to claims 5-8. Further, Graziano fails to overcome the deficiencies of Zeller discussed with reference to claim 1, and particularly, Graziano fails to show the last three claim elements of claim 1 as discussed above. Hence, claims 5-8 are believed allowable as depending from an allowable base claim.

Further, the July 28, 2005 Office Action rejected claim 9 under 35 U.S.C. §103(a) as being unpatentable over Zeller in view of Graziano in view of Official Notice. This rejection is traversed as claim 9 depends from claim 7 and is believed allowable as depending from an allowable base claim. Additionally, Official Notice is not taken to overcome the deficiencies in Zeller pointed out above with respect to claim 1.

Still further, the July 20, 2005 Office Action rejected claim 12 under 35 U.S.C. §103(a) as being unpatentable over Gonzales in view of U.S. Pat. Appl. Publ. No. 2005/0120301 ("Humpleman"). This rejection is traversed based on the following remarks.

Claim 12 is cancelled but its limitations have been inserted in independent claim 10. Claim 10 is allowable over Gonzales for the reasons provided above including Gonzales' failure to teach the network interface called for in Claim 10. Humpleman was cited for teaching the discovery processes called for in claim 12, but Applicant disagrees that the combination of Gonzales and Humpleman teach the control unit of claim 10. Humpleman is cited at paras. [0024], [0054], [0086], [0087], and [0093]. But, beginning at para. [0086], the Humpleman "Home Device Discovery Process" is described as being provided via TCP/IP network protocols and a DHCP server 106 is used to allow the devices to discover the IP addresses of the other home devices.

There is no teaching, however, of the features of the discovery processes of claim 10 in which interrogation occurs of other control systems let alone that the interrogation is "to learn device-specific signaling protocols for communicating control information with the interrogated systems." In other words, where in Humpleman is

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there any teaching that the various devices need to identify signaling protocols that are device-specific in order to be able to communicate control information among the Humpleman devices? In contrast, Humpleman merely teaches communicating via standard TCP/IP protocols without any varying protocols in its systems. Hence, the discover processes feature of claim 10 is not shown or suggested by Humpleman and the combining of the teaching of Gonzalez and Humpleman would not result in the control unit of claim 10.

Conclusions

Based on the above remarks, it is requested that a timely Notice of Allowance be issued in this case.

No fee is believed due for this submittal. However, any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,

10/19/05



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